REISSUE APPLICATION DECLARATION BY THE INVENTOR	Docket Number (Optional) VN169RT

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed in patent number ___5,566169___ , granted _OCTOBER 15, 1996_ , and for which a reissue patent is sought on the invention entitled _DATA COMMUNICATION NETWORK WITH TRANSFER PORT, CASCADE PORT AND/OR FRAME SYNCHRONIZING SIGNAL_ the specification of which

☐ is attached hereto.

☒ was filed on _OCTOBER 15, 1998_ as reissue application number _09/173,582_ and was amended on _____ .
(If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

☐ by reason of a defective specification or drawing.

☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.

☐ by reason of other errors.

At least one error upon which reissue is based is described as follows:

BY REASON OF CLAIMING ONLY CLAIMS 1-15, WHICH IS LESS THAN THE FULL RIGHT TO CLAIM IN THE PATENT, ADDITIONAL CLAIMS ARE ADDED, FOR EXAMPLE, CLAIM 16 IN THE REISSUE APPLICATION. THIS ERROR IS RELIED UPON TO SUPPORT THE REISSUE APPLICATION.

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(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)	Docket Number (Optional) VN169RI

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named Inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s)   Registration Number

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first Inventor (given name, family name)
GEETHA N.K. RANGAN

Inventor's signature Geetha N.K. Rangan

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Inventor's signature	Date
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Full name of third joint Inventor (given name, family name)
RICHARD THAIK

Inventor's signature	Date
Residence	Citizenship
Post Office Address	

☒ Additional joint Inventors are named on separately numbered sheets attached hereto.

each said receive datapath including;

a deserializer configured to receive serial data from said communications medium and output at least a portion of said received serial data in parallel;

means for selectively transmitting, in response to one of said plurality of control signals, said data output by said deserializer to said receive memory means;

each said transmit datapath including a serializer configured to receive parallel data and output serial data.

2. Apparatus, as claimed in claim 1, wherein each of said receive memory means and said transmit memory means is a buffer.

3. Apparatus, as claimed in claim 1, wherein said data received over said communications medium includes status data indicating at least a status of port activities.

4. Apparatus, as claimed in claim 1, wherein said data received over said communications medium comprises status data including at least a status of interrupts of at least one of said data stations and wherein each said receive datapath includes a demultiplexer coupled between said communications path and said deserializer for diverting said status data to a first location prior to receipt of serial data in said deserializer.

5. Apparatus, as claimed in claim 4, wherein said first location comprises a first register.

6. Apparatus, as claimed in claim 5, wherein said apparatus is contained in a first network data station, coupled, via said communications medium, to a plurality of other data stations and wherein said first register stores status data from all said other data stations which are connected to said first network data station.

7. Apparatus, as claimed in claim 1, wherein said transmit datapath includes means for generating at least one predetermined data pattern for transmission onto said communications medium.

8. Apparatus, as claimed in claim 7, wherein said means for generating includes means for generating a plurality of predetermined data patterns and means for selecting among said plurality of data patterns in response to one of said plurality of control signals.

9. Apparatus, as claimed in claim 1, wherein said data stations include at least first and second network data stations, and said apparatus is contained in said first network data station, which is coupled, via said communications medium, to a first plurality of other data stations and also coupled, by said apparatus, via said communications medium, to said second network data station which is coupled to a second plurality of data stations and wherein:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.: 5,566,169
DATED: October 15, 1996
INVENTOR(S): Geetha Rangan et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Col. 32, line 30, delete "receiver" and replace with --receive--.

TABLE IX-continued

Mode 1 (Mixed Mode)
Data Buffer Loading Sequence According to Buffer Address

Receive Buffer				Transmit Buffer	
Buffer Address	Data in Buffer Location	Buffer Address	Data in Buffer Location	Buffer Address	Data in Buffer Location
20H	filler	5f7H	Port 7-B96	5faH	TSI ring Slot 1530
21H	Port 1-B3	5f8H	Port 3-B96	5fbH	TSI ring Slot 1531
22H	Port 2-B3	5f9H	Port 9-B96	5fcH	TSI ring Slot 1532
23H	Port 3-B3	5faH	Port 10-B96	5fdH	TSI ring Slot 1533
24H	Port 4-B3	5fbH	Port 11-B96	5feH	TSI ring Slot 1534
25H	Port 5-B3	5fcH	Port 12-B96	5ffH	TSI ring Slot 1535
26H	Port 6-B3	5fdH	Port 13-B96	600H	TSI ring Slot 1536
27H	Port 7-B3	5feH	Port 16-B247		
28H	Port 8-B3	5ffH	Port 16-B248		
29H	Port 9-B3	600H	filler		

TABLE X

Signal Name	Description
RXI+.RXI–	Twisted pair receive inputs
TXOP–,TXO–, TXO+,TXOP+	Twisted pair transmit outputs
TXD	Transmit Data input. Serial NRZ data input from the controller.
TXE	Transmit Enable
TXC	Transmit Clock. A 10 Mhz clock derived from the 20 Mhz ECLK input.
COL	Collision Detect output. Generates an active high signal when the transceiver function of the physical layer portion detects a collision
RXD	Receive Data Output
RXC	Receive clock
CRS	Carrier Sense
ECRS	Early carrier sense. In mixed configuration, this signal goes active when valid data has reached the input of the Ethernet receive FIFO
LCLK	Link Clock. Used by the transmit circuits as the bit level clock for data encoding upon the isochronous/ethernet link.
ECLK	Ethernet clock. Used to encode data when the physical layer portion is operating in 10 Base T mode.
IRFS	Isochronous Receive frame synch. This output marks the beginning of a receive frame cycle.
IRXD	Isochronous receive data
IRXE	Isochronous receive enable
IFR	Isochronous Frame reference
ITFS	Isochronous transmit frame synch. Marks the beginning of a transmit frame cycle.
ITXD	Isochronous Transmit data

What is claimed is:

1. In a data communication network for communicating data between a plurality of data stations over a communications medium under control of a processor which outputs a plurality of control signals, apparatus comprising:

a receive memory means and a transmit memory means;

a receive. datapath corresponding to each data station coupled between said communications medium and said receive memory means for providing at least some data received over said communications medium to said receive memory means;

a transmit datapath corresponding to each data station coupled between said transmit memory means and said communications medium for providing at least some data from said transmit memory means to said communications medium;

each said receive datapath including;

a deserializer configured to receive serial data from said communications medium and output at least a portion of said received serial data in parallel;

means for selectively transmitting, in response to one of said plurality of control signals, said data output by said deserializer to said receive memory means;

each said transmit datapath including a serializer configured to receive parallel data and output serial data.

2. Apparatus, as claimed in claim 1, wherein each of said receiver memory means and said transmit memory means is a buffer.

3. Apparatus, as claimed in claim 1, wherein said data received over said communications medium includes status data indicating at least a status of port activities.

4. Apparatus, as claimed in claim 1, wherein said data received over said communications medium comprises status data including at least a status of interrupts of at least one of said data stations and wherein each said receive datapath includes a demultiplexer coupled between said communications path and said deserializer for diverting said status data to a first location prior to receipt of serial data in said deserializer.

5. Apparatus, as claimed in claim 4, wherein said first location comprises a first register.

6. Apparatus, as claimed in claim 5, wherein said apparatus is contained in a first network data station, coupled, via said communications medium, to a plurality of other data stations and wherein said first register stores status data from all said other data stations which are connected to said first network data station.

7. Apparatus, as claimed in claim 1, wherein said transmit datapath includes means for generating at least one predetermined data pattern for transmission onto said communications medium.

8. Apparatus, as claimed in claim 7, wherein said means for generating includes means for generating a plurality of predetermined data patterns and means for selecting among said plurality of data patterns in response to one of said plurality of control signals.

9. Apparatus, as claimed in claim 1, wherein said data stations include at least first and second network data stations, and said apparatus is contained in said first network data station, which is coupled, via said communications medium, to a first plurality of other data stations and also coupled, by said apparatus, via said communications medium, to said second network data station which is coupled to a second plurality of data stations and wherein: